

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for allocating resources in a wireless time division duplex communication system having a variable number of time slots allocated to support either uplink or downlink communications, the method comprising:

determining time slots available for allocation to support either uplink or downlink communications;

determining potential switching points between the available time slots, the switching points representing a change between time slots used to support uplink and downlink communications;

for each switching point:

for each of uplink and downlink, determining a number of ~~user that can be supported~~ users supportable by comparing a blocking probability of real time services with a required blocking probability of real time services and comparing an average delay of non-real time services with a required average delay of non-real time services; and

selecting a minimum of the uplink and downlink users ~~that can be supported~~ supportable as the number of users ~~that can be supported~~ supportable for that switching point; and
selecting the switching point having a maximum number of users ~~that can be supported~~ supportable ; and
allocating the available uplink and downlink time slots based on the selected ~~switch~~ switching point.

2. (Original) The method of claim 1 wherein the comparing the blocking probability of real time services with the required blocking probability is by determining whether the blocking probability of real time services is less than or equal to the required blocking probability.

3. (Original) The method of claim 2 wherein the required probability of a particular user being blocked is based on a service type of that particular user.

4. (Original) The method of claim 1 wherein the comparing the average delay of non-real time services with the required average delay of non-real time services is by determining whether the average delay of non-real time services is less than or equal to the required average delay of non-real time services.

5. (Original) The method of claim 4 wherein the required average delay of non-real time services for a particular user is based on a service type of that particular user.

6. (Currently Amended) A method for allocating resources in a wireless frequency division duplex communication system having a variable number of frequencies allocated to support either uplink or downlink communications, the method comprising:

determining frequencies available for allocation to support either uplink or downlink communications;

determining potential switching points between the available frequencies, the switching points representing a change between frequencies used to support uplink and downlink communications;

for each switching point:

for each of uplink and downlink, determining a number of ~~user that can be supported~~ users supportable by comparing a blocking probability of real time services with a required blocking probability of real time services and comparing an average delay of non-real time services with a required average delay of non-real time services; and

selecting a minimum of the uplink and downlink users ~~that can be supported~~ supportable as the number of users ~~that can be supported~~ supportable for that switching point; and
selecting the switching point having a maximum number of users ~~that can be supported~~ supportable ; and
allocating the available uplink and downlink frequencies based on the selected switch point.

7. (Original) The method of claim 6 wherein the comparing the blocking probability of real time services with the required blocking probability is by determining whether the blocking probability of real time services is less than or equal to the required blocking probability.

8. (Original) The method of claim 7 wherein the required probability of a particular user being blocked is based on a service type of that particular user.

9. (Original) The method of claim 6 wherein the comparing the average delay of non-real time services with the required average delay of non-real time services is by determining whether the average delay of non-real time services is less than or equal to the required average delay of non-real time services.

10. (Original) The method of claim 9 wherein the required average delay of non-real time services for a particular user is based on a service type of that particular user.

11. (Currently Amended) A radio network controller (RNC) allocating resources where a variable number of time slots ~~can be~~ are allocated to support either uplink or downlink communications, the RNC comprising:

a radio resource manager (RRM) configured to:

~~means for determining~~ determine time slots available for allocation to support either uplink or downlink communications;

~~means for determining~~ determine potential switching points between the available time slots, the switching points representing a change between time slots used to support uplink and downlink communications;

~~means~~ determine for each switching point~~[[:]~~, for each of uplink and downlink, ~~determining a number of user that can be supported~~ users supportable by comparing a blocking probability of real time services with a required blocking probability of real time services and comparing an average delay of non-real time services with a required average delay of non-real time services; and ~~selecting~~ select a minimum of the uplink and downlink users ~~that can be supported~~ supportable as

the number of users ~~that can be supported~~ supportable for that switching point;
[[and]]

~~means for selecting~~ select the switching point having a maximum number of
users ~~that can be supported~~ supportable ; and

~~means for allocating~~ allocate the available uplink and downlink time slots
based on the selected switch point.

12. (Original) The RNC of claim 11 wherein the comparing the blocking probability of real time services with the required blocking probability is by determining whether the blocking probability of real time services is less than or equal to the required blocking probability.

13. (Original) The RNC of claim 12 wherein the required probability of a particular user being blocked is based on a service type of that particular user.

14. (Original) The RNC of claim 11 wherein the comparing the average delay of non-real time services with the required average delay of non-real time services is by determining whether the average delay of non-real time services is less than or equal to the required average delay of non-real time services.

15. (Original) The RNC of claim 14 wherein the required average delay of non-real time services for a particular user is based on a service type of that particular user.

16. (Currently Amended) A radio network controller (RNC) allocating resources where a variable number of frequencies ~~can be~~ are allocated to support either uplink or downlink communications, the RNC comprising:

a radio resource manager (RRM) configured to:

~~means for determining~~ determine frequencies available for allocation to support either uplink or downlink communications;

~~means for determining~~ determine potential switching points between the available frequencies, the switching points representing a change between frequencies used to support uplink and downlink communications;

~~means~~ determine for each switching point[[:]], for each of uplink and downlink, ~~determining a number of user that can be supported~~ users supportable by comparing a blocking probability of real time services with a required blocking probability of real time services and comparing an average delay of non-real time services with a required average delay of non-real time services; and ~~selecting~~ select a minimum of the uplink and downlink users ~~that can be supported~~ supportable as the number of users ~~that can be supported~~ supportable for that switching point; and

~~means for selecting~~ select the switching point having a maximum number of users ~~that can be supported~~ supportable ; and

~~means for allocating~~ allocate the available uplink and downlink frequencies based on the selected switch point.

17. (Original) The RNC of claim 16 wherein the comparing the blocking probability of real time services with the required blocking probability is by determining whether the blocking probability of real time services is less than or equal to the required blocking probability.

18. (Original) The RNC of claim 17 wherein the required probability of a particular user being blocked is based on a service type of that particular user.

19. (Original) The RNC of claim 16 wherein the comparing the average delay of non-real time services with the required average delay of non-real time services is by determining whether the average delay of non-real time services is less than or equal to the required average delay of non-real time services.

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20. (Original) The RNC of claim 19 wherein the required average delay of non-real time services for a particular user is based on a service type of that particular user.